

### Claims

1. Recombinant vector system comprising at least one copy of a  
5 nucleic acid encoding the antigen-binding site of the heavy chain of  
an antibody comprising a nucleotide sequence encoding the CDR3  
region (designated H3), or/and encoding the CDR2 region  
(designated H2), or/and encoding the CDR1 region (designated H1),  
as shown in Figure 1 or/and Figure 6, and at least one copy of a  
10 nucleic acid encoding the antigen-binding site of the light chain of an  
antibody comprising a nucleotide sequence encoding the CDR3  
region (designated L3), or/and encoding the CDR2 region  
(designated L2), or/and encoding the CDR1 region (designated L1),  
as shown in Figure 1 or/and Figure 6, wherein the nucleic acid  
15 encoding the antigen-binding site of the heavy chain and of the light  
chain have separate expression control sequences.
2. Recombinant vector system according to claim 1 comprising a first  
recombinant vector comprising at least one copy of a nucleic acid  
20 encoding the antigen-binding site of the heavy chain and a second  
recombinant vector comprising at least one copy of a nucleic acid  
encoding the antigen-binding site of the light chain.
3. Recombinant vector system according to claim 1 wherein at least  
25 one copy of the nucleic acid encoding the antigen-binding site of the  
heavy chain and of the light chain are located on the same  
recombinant vector.
4. Method for the recombinant production of a polypeptide having an  
30 antigen-binding site comprising:  
(a) providing a recombinant vector system according to any one  
of claims 1-3,

- (b) introducing the recombinant vector system into a suitable host cell,
- (c) culturing the host cell under suitable conditions in a medium whereby an expression of the polypeptide takes place and
- 5 (d) obtaining the expressed product from the medium and/or the host cell.

5. The method of claim 4, wherein the host cell is a mammalian cell.

10 6. The method of claims 4 or 5, wherein between steps (a) and (b) a modification of the vector system takes place wherein the modification substantially does not alter the amino acid sequence of the antigen-binding site of the polypeptide to be expressed.

15 7. The method of any one of claims 4-6 further comprising preparing a diagnostic or therapeutic agent from the expressed product.

8. The method of claim 7, wherein the expressed product is coupled to a diagnostic marker.

20 9. The method of claim 7, wherein the expressed product is coupled to a cytotoxic agent.

25 10. The method of claims 4-9, wherein the expressed product is selected from antibodies and antibody fragments.